

**REMARKS**

Claims 1-29 are pending in this application. Non-elected claims 10-19 and 26 are withdrawn from examination by the Examiner. By this Amendment, the specification and claims 1-3, 7, 9, 21, 22, 24, 25, and 27 are amended, and claims 28 and 29 are added. Support for the amendments and new claims may be found in the original claims and in the specification at page 5, lines 9 and 10. No new matter is added.

In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

**I. Information Disclosure Statement**

Applicants thank the Examiner for considering the references cited in the Information Disclosure Statement (IDS) filed on July 26, 2006. Cited reference (7), "GB 2 327 574 A" was incorrectly entered. The Document Number should be "GB 2 327 754 A." It is correctly listed on the International Search Report. Appropriate correction is requested.

**II. Objection to Disclosure**

The Office Action objects to the disclosure because the specification does not contain a section labeled "Brief Description of the Drawings." As indicated above, the specification is amended to contain proper section headings and to reference the continuity data. Accordingly, reconsideration and withdrawal of the objection are respectfully requested.

**III. Claim Objection**

The Office Action objects to claim 22 for being of improper dependent form. By this Amendment, claim 22 is amended to depend from claim 3 instead of claim 1. Reconsideration and withdrawal of the objection are respectfully requested.

**IV. Rejection Under 35 U.S.C. §112**

The Office Action rejects claims 1-9, 20-25, and 27 as being indefinite under 35 U.S.C. §112, second paragraph. The claims are variously amended, as set forth *supra*, to

obviate most of the issues presented in the Office Action. As to the issues that are not obviated by the claim amendments, Applicants respectfully traverse the rejection, for the reasons presented below.

The Office Action asserts that the limitation "the reactivity probe in the database" recited in stage c) of claims 1, 2, 3, and 27 renders the claim indefinite. Applicants respectfully disagree. "The reactivity probe" finds antecedent basis in stage a), which recites "a reactivity probe." "The database" finds antecedent basis in the preamble, which recites "a database."

With respect to claim 25, the Office Action asserts that the recitation of "the catalysts listed according to different reaction conditions" lacks antecedent basis. "The catalysts" finds antecedent basis support in the recitation of "at least one catalyst" found in the preamble of claim 1.

The Office Action asserts that the limitation "information is associated with each unit listed targeted as describing the state of the bonds which are associated with it" is unclear. By this Amendment, this limitation is amended to recite "information is associated with each unit listed describing a state of bonds of the reaction unit." Applicants also point the Examiner's attention to the specification at page 5, line 12, to page 6, line 4.

In view of the claim amendments and arguments set forth above, reconsideration and withdrawal of the rejection are requested.

**V. Rejection Under 35 U.S.C. §102**

The Office Action rejects claims 1-9, 20-22, 24, 25, and 27 under 35 U.S.C. §102(b) as being anticipated by Studer, Chem. Commun., 1999, pages 1727-1728 ("Studer"). Applicants respectfully traverse the rejection.

It is well settled that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. See MPEP §2131. Studer fails to disclose every limitation recited in claims 1-3 and 27.

Studer is directed to the enantioselective hydrogenation of a variety of  $\alpha$ -ketoacetals to the corresponding  $\alpha$ -hydroxy acetals with Pt catalysts. See page 1727. Specifically, Studer describes the influence of substrate structure, the modifier and the reaction conditions (catalyst, solvent, temperature, pressure, modifier concentration). Id. Studer is directed to identifying the best operating conditions relating to a specific chemical reaction, starting from a catalyst assumed to be effective using the empirical method known at the time of invention, which was time-consuming and expensive. See, e.g., Applicants' specification, page 1, line 32 to page 2, lines 1-2. The method of claims 1-3 and 7 is specifically targeted at curing the deficiency of the known empirical method by making a database. See Applicants' specification, page 2, lines 26-29.

Studer is completely silent regarding "a method for creating a database," as recited in claims 1-3 and 27, and especially a database "which makes it possible to select at least one catalyst suitable for a reaction," as recited in claims 1, 3, and 27. In fact, Studer does not attempt to disclose a database because it is directed solely to a specific chiral catalyst system based on the hydrogenation of  $\alpha$ -ketoacetals to the corresponding  $\alpha$ -hydroxy acetals. See page 1728. Specifically, Studer only summarizes the results of the  $\alpha$ -ketoacetal structure, using Pt/Al<sub>2</sub>O<sub>3</sub> in the presence of 10,11-dihydrocinchonide (HCd) in toluene or 9-methoxy-HCd (MeOHCd) in AcOH. See Table 1 on page 1727.

Regarding claim 1, Studer fails to disclose analyzing each reaction medium after reaction, and "assigning a result of the analysis... to the reactivity probe in the database, this result characterizing reaction products obtained from the reactivity probe," as recited in claim 1. Regarding claims 2 and 3, Studer fails to disclose "reaction units are listed

individually in the database, the units being present on the reactivity probes," and" the database comprising information which informs about an influence of a structural environment of a listed reaction unit on its reactivity," as recited in claims 2 and 3, respectively. Regarding claim 27, Studer fails to disclose "assigning a result of the analysis... to the reactivity probe in the database, this result characterizing reaction products obtained from the reactions of the reaction media."

Thus, Studer does not anticipate claims 1-3 and 27. Claims 4-9, 20-22, 24, and 25 depend from claim 1 and, thus, also are not anticipated by Studer for at least the same reasons. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**VI. Rejection Under 35 U.S.C. §103**

The Office Action rejects claim 23 under 35 U.S.C. §103(a) as having been obvious over Studer. Applicants respectfully traverse the rejection.

Studer does not anticipate, and therefore would not have rendered obvious claim 2 for the reasons discussed above. Claim 23 depends from claim 2 and, thus, would not have been rendered obvious by Studer. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

**VII. New Claims**

By this Amendment, new claims 28 and 29 are presented that depend from claim 1. and, thus, distinguish over Studer for at least the reasons discussed above. Prompt examination and allowance of new claims 28 and 29 are respectfully requested.

**VIII. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place

- this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Petition for Extension of Time  
Amendment Transmittal

Date: November 15, 2010

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